DEPARTMENT OF
PUBLIC HEALTH AND HUMAN SERVICES

BRIAN SCHWEITZER
GOVERNOR

JOAN MILES
DIRECTOR

STATE OF MONTANA

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QUALITY ASSURANCE DIVISION
LICENSING AND CERTIFICATION BUREAU
PROVIDER INFORMATION NOTICE – 071907-REV.080807

Heat Wave / Nursing Homes:

The Department has received several inquiries regarding installation of "swamp coolers" in areas of nursing homes or assisted living facilities that do not have central air-conditioning. The Department was in error when it stated; *"Swamp coolers or other types of evaporative coolers are not a permitted cooling method and may not be used because of potential problems with infection control"*.

The Department has researched the use of evaporative coolers in health care facilities. Advancements in the technology of evaporative coolers have eliminated many previously held concerns regarding infection control problems. The Department has concluded that with proper installation, operation, filtration and maintenance, swamp coolers are acceptable for use in health care facilities.

The Department's research found some advantages for facility use of an evaporative cooler. They are:

1). More cost effective than air conditioners.

2). Very good cooling effectiveness in dry arid climates and helps keep facility humidity up.

3). Some portable evaporative coolers have Heppa filters rated above 97%.

Conversely, there are also disadvantages that must be considered by a facility. They are:

1). The research indicates that if the coolers are used in a facility with a humidity reading above 50%, the facility will recognize very little cooling value.

2). Humidity greater than 50% in the facility will promote growth of molds spores etc.

Central Air Conditioner – roof mounted or through the wall unit standards:
The 2001 – American Institute of Architects, "Guidelines for Design and Construction of Health Care Facilities" manual, calls for air supply filtration (among other things) for non-central air conditioning systems to meet the following efficiencies:

8.31.D8. Non-central air handling systems, e.g., through-the-wall fan coil units, shall be equipped with permanent (cleanable) or replaceable filters rated at a minimum efficiency of 68 percent arrestance per ASHRAE Test Methods Standard 52.1-92.

Free Standing (portable) Evaporative Coolers(non-vented to the outside), Routine Preventative Maintenance shall be established:
Suggested guidance for maintenance:

1. When free standing swamp coolers are in use, some facility windows should be open to provide an escape route for hot air displacement; this will help prevent humidity build up in the facility. With cooler air entering the building, an increase in facility humidity would be the only benefit, if there is nowhere for the hot air to go.

2. Flush the filter media and disinfect **monthly** with a 4 oz. of bleach per gallon of water Solution.

3. Clean and disinfect the water storage pan and pump **monthly** with a 4oz. of bleach per gallon of water solution.

4. Check fan belt tension **monthly.**

5. Lubricate all fan shafts, block bearings, or any other grease or oil points as recommended by the manufacturer's operations manual but no less than **monthly.**

5. Change cooler pads (filter media) **yearly.**

6. Inspect cabinet for proper fit between filter media and the frame **yearly.**

These are some alternative and other acceptable ways to assist with keeping residents cool.

1. Portable (roll around) air-conditioners with an outside exhaust hook-up (usually through a window mounted vent).

2. Window mounted air-conditioning units with the outside air (vent) disabled. Sealing the vent allows this type of unit to recycle and condition the room air and does not require 35% efficient filters to be installed on the outside air intake.

3. All types of personal fans, wall mounted hallway fans, large stand fans in open dining room/activity areas. (Please no "lamp cord" type extension cords are to be used)

4. Frozen treats between meals, frequent ice water passes or just adding ice cubes to any drink. Activities involving watermelon, root beer floats, ice cream sundaes, etc. Lemonade stands around the facility to remind residents to keep hydrated.

5. **Take advantage of the cooling power of water.** Fill buckets or basins and soak resident's feet. Applying wet towels or bandannas on resident's shoulders or head can have a cooling effect. Increase availability of resident cool showers or baths. Provide residents with a personal spray bottle filled with cold water for refreshing spritzes throughout the day. Any kind of crushed ice packs provided to residents is helpful.

6. Make sure residents are dressed appropriately with cool, loose fitting clothing.

7. Schedule more activities in air conditioned areas of the facility.

Additional Facility Considerations:

1. Scheduling additional staff to help monitor residents to insure residents are not in duress from the heat. Respond to resident monitoring by providing early staff intervention from heat related distress.

2. Close all facility windows during the heat of the day. Conversely, open facility windows during the cool of the evening and at night.

3. Draw facility and resident room shades, blinds or window treatments in the heat of the day to prevent sun heat build up.